

var. *microtricha* OHWI, vid. infr.\*

ちやしばすげ、ちしまあしばすげ (幌筵島、占守島)。

22) *Carex vesicaria* LINN. Sp. Pl. (1753) 979.

おになるこすげ (幌筵島)。

var. *dichroa* ANDERSS. Cyper. Sc. (1849) 18.

ひめおになるこすげ (幌筵島)。

附記 北千島ノ旅行ハ以前ハ交通ガ不便デアツタ爲メニ困難デアツタガ、昨夏私ガ行ツタトキニハ各島至ル所ニ漁場ガアリ、夏期ニハ函館、根室カラ月ニ數回ノ便船ガ通フ様ニ成ツテ居タ。又、ソノ當時ハ幌筵樺鉢灣唯一ケ所驛遞所ガアルダケデアツタガ本年度カラハ片岡灣、村上灣、加熊別等數ケ所ニ置カレル筈デアルカラ旅行ニハ一層便利ニ成ラウ。

\* *Carex verna* CHAIX var. *microtricha* OHWI comb. nov.

*Carex microtricha* FRANCH. Car. As. Orient. (1897) n. 192.

*Carex caryophylla* var. *microtricha* KÜKENTH. Cyper. Caric. (1909) 466, partim.

*Carex caryophylla* subsp. *NERVATA* KÜKENTH, l. c. partim, incl. ff. *leiocarpa* et *dissita* KÜKENTH.

A typo diversa utriculis sparsius puberulis vel non raro deinde decalvatis obsolete nervosis, disco achenii latiore.

Hab. Saghalien, Kuriles, Korea, Yezo, Hondo borealis.

## Contributions to the Bryological Flora of Eastern Asia (I)\*

By

Yoshiwo HORIKAWA

堀川芳雄：東亞産苔蘚植物報告 (其一)

1) *Pellia Neesiana* (GOTTSCHE) LIMPRICT in COHN Krypt. Fl. Schles I (1876) p. 329.

Syn. *Pellia epiphylla* f. *Neesiana* GOOTSCHE in Hedwigia (1867) p. 69.

\* The expense of the study has been partly defrayed by the Subsidy granted by the Foundation for the Promotion of Scientific and Industrial Research of Japan.

本研究ハ日本學術振興會ノ援助金ニヨツテ遂行サレタモノノ一部ニシテ拙著東亞苔蘚植物誌 (目下植物學雜誌ニ連續掲載中)ノ姉妹篇デアル。

Nom. Jap. Yezo-mizuzenigoke.

Hab. On wetty soil.

Saghalien : Circ. Siska, prov. Siska (Y. HORIKAWA, July 28, 1931).

Distr. Europe, Himalaya, China, Formosa, Yakushima, Japan Proper, Hokkaidô, North America.

This species is a new addition to the flora of Saghalien.

2) **Lophozia quinquedentata** (HUDSON) COGNIAUX in Bull. Soc. Roy, Bot. Belgique, X. (1872) p. 279.

Syn. *Jungermannia quinquedentata* HUDSON Fl. Angl. (1762) p. 511.

*Jungermannia barbata* var. *quinquedenata* NEES Naturg. Europ. Leberm. II. (1836) p. 196.

*Jungermannia Lyoni* TAYLOR in Trans. Bot. Soc. Edinb. I. (1844) p. 116.

*Lophozia Lyoni* STEPHANI Spec. Hep. II. (1902) p. 149.

*Barbilophozia quinquedentata* LOESKE Verh. Bot. Ver. Prov. Brandenburg, XLIX. (1907) p. 37.

Hab. Growing mixed with mosses on moist banks.

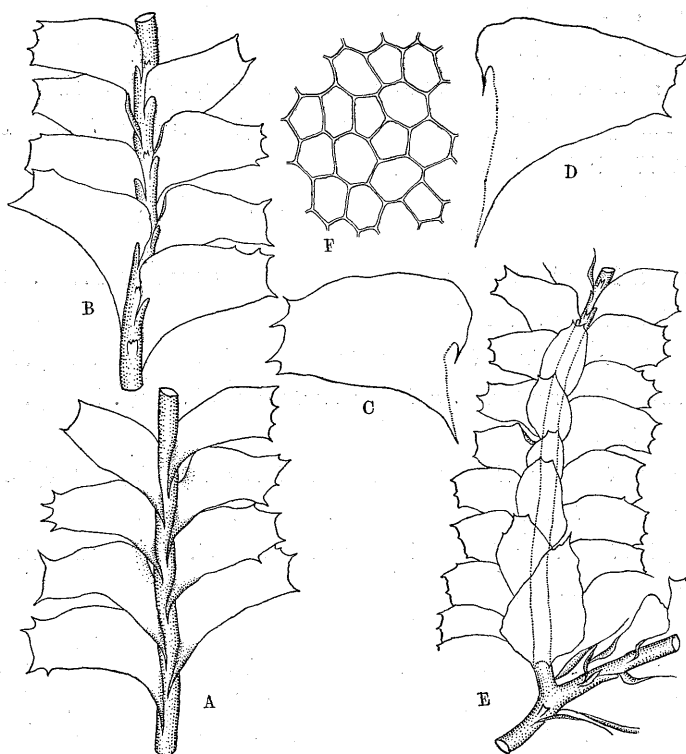
Saghalien : Mt. Tossozan, prov. Motodomari (Y. HORIKAWA, July 23, 1931).

Distr. Europe, Caucasus, Siberia, Alaska, Greenland, Canada.

The species is not only new to the flora of Japan but also to Eastern Asia.

3) **Plagiochila curiosissima** HORIKAWA, sp. nov.

Planta mediocris, rigidiuscula, flavo-virens, ad 25 mm longa, cum foliis 2.7 mm lata, dense caespitosa. Caulis ca. 0.18 mm in diametro, fuscobrunneus, repetito furcatus. Folia caulina adulta laxè imbricata, parum conicava, oblique vel subrecte patula, plano disticha, utrinque longeque decurrentia, basi postica ampliata caulique longius incumbentia, in plano oblongo-trigona, vix 1.9 mm longa, basi 1.4 mm lata, apice 0.7 mm lata, basi amplissima, apice 2-3-plo angustiora, asymmetrica, margine antico et postico nudo, apice truncato et 2-4-dentato, dentibus validis latis acutis. Folia ramulina multo minora, similiter armatis. Cellulae apicales ca. 19  $\mu$ , medio 26  $\mu$  et basales 18  $\times$  45  $\mu$ , trigonis subnullis. Amphigastria caulina normaliter rudimentaria sed ramulina distincta, hic illic gigantea et imbricata, elliptico-ovato, ca. 0.85 mm



Text-fig. 1. *Plagiochila curiosissima* HORIKAWA. A. Part of stem, antical view,  $\times 15$ . B. Ditto, postical view,  $\times 15$ . C, D. Stem-leaves, dissected from stem,  $\times 15$ . E. Part of branch, showing giant under-leaves, postical view,  $\times 15$ . F. Cells from middle of leaf,  $\times 250$ .

A. 莖ノ一部、背面觀  $\times 15$ 。B. 同上、腹面觀  $\times 15$ 。C, D. 莖葉  $\times 15$ 。  
E. 枝ノ一部、偉大ナル腹面葉が重ナリ合フ狀況ヲ示ス、腹面觀  $\times 15$ 。  
F. 葉ノ中央部位ノ細胞  $\times 250$ 。

longa, 0.5 mm lata, apice leviter emarginata, sinuatim inserta.

Hab. On the rocks in dense forest.

Shikoku: Mt. Hônokawayama, prov. Tosa (N. KAMIMURA, no. 1209, Nov. 1934 -typus in Herb. Hiroshima Univ.).

4) **Nowellia curvifolia** (DICKSON) MITTEN in GODMAN Nat. Hist. Azores. (1870) p. 321.

Syn. *Jungermannia curvifolia* DICKSON Plant. Crypt. Fasc. II. (1790)

p. 15.

*Jungermannia Baueri* MARTIUS Fl. Crypt. Erlangensis. (1817) p. 172.

*Cephalozia curvifolia* DUMORTIER Rec. d'observ. (1835) p. 18.

*Trigonanthus curvifolius* SPRUCE in HARTMAN Skand. fl. ed. 10. (1871) p. 143.

Nom. Jap. Fukuro-yabanegoke.

Hab. On the decayed logs.

Saghalien : Ho-e, Kiushiu Imp. Univ. Forest, prov. Siska (Y. HORIKAWA, July 26, 27, 1931).

Distr. Europe, Madeira, Azores, North America, Mexico, Japan Proper, Yakushima, Formosa.

The species is a new addition to the flora of Saghalien.

5) **Calypogeia Neesiana** (MASSALONGO et CARESTIA) K. MÜLLER, var. **hygrophila** K. MÜLLER in RABENHORSTS Krypt. Fl. VI. 2. (1913) p. 238.

Hab. Mixed with *Sphagnum* in wetty bogs.

Saghalien : Circ. Siska, prov. Siska (Y. HORIKAWA, July 25, 1931).

Distr. Europe.

This variety is a new addition to the flora of Asia.

6) **Frullania dilatata** (LINNÉ) DUMORTIER Rec. d'observ. (1835) p. 13.

Syn. *Jungermannia dilatata* LINNÉ Sp. pl. (1753) p. 1133.

Hab. On the bark of trees and decaying woods.

Saghalien : Hoe, Kiushiu Imp. Univ. Forest, prov. Siska (Y. HORIKAWA, July 23, 1931); Mt. Tossozan, prov. Motodomari (Y. HORIKAWA, July 23, 1931); Circ. Hakuchôko, prov. Toyohara (Y. HORIKAWA, July 22, 1931); Rosuke-sawa, prov. Ôtomari (Y. HORIKAWA, July 21, 1931)

Distr. Europe, Madeira, Teneriffe, Algeria, Caucasus, Hokkaidô.

The species is new to the flora of Saghalien.

7) **Physocolea denticulata** HORIKAWA in Journ. Sci. Hiroshima Univ. Ser. B, Div. 2, II. (1934) p. 287.

Hab. On the living leaves of trees.

Shikoku : Mt. Hônokawayama, prov. Tosa (N. KAMIMURA, no. 880, Oct.

1934); ibidem (N. KAMIMURA, no. 1216, Nov. 1934).

Distr. Yakushima.

This species is a new addition to the flora of Japan Proper.

8) **Ditrichum pallidum** (SCHREBER) HAMPE in Flora (1867) p. 182.

Syn. *Bryum pallidum* SCHREBER Spic. fl. lips. (1771) p. 80.

*Leptotrichum pallidum* HAMPE in Linnæa (1847) p. 74.

*Diaphanophyllum pallidum* LINDBERG in Öfv. af K. Sv. Vet.-Akad. Förh. (1862) p. 605.

Nom. Jap. Kinshigoke, Benie-kinshigoke.

Hab. On earth in sunny places.

Formosa: Mt. Taiheizan (Kianrawazawa), prov. Taihoku (Y. HORIKAWA, Aug. 24, 1932); Mt. Morrison (Numanodaira-Kodamayama), prov. Tainan (Y. HORIKAWA, Aug. 18, 1932).

Distr. Europe, Caucasus, Liukius, Japan Proper, Hokkaidô, North America.

This species is new to the flora of Formosa.

9) **Webera nutans** (SCHREBER) HEDWIG Deser. I. (1787) p. 9.

Syn. *Bryum nutans* SCHREBER Spic. fl. lips. (1771) p. 81.

*Pohlia nutans* LINDBERG Mus. Scand. (1879) p. 18.

*Mnium nutans* HOFFMEISTER Deutschl. Fl. II. (1796) p. 49.

Nom. Jap. Hechimagoke.

Hab. On the moist soil.

Yakushima: Between Anbô and Tashirobashi (Y. HORIKAWA, July 9, 1933).

Distr. Europe, Spitzbergen, Caucasus, Siberia, Kamtchatka, Amur, Saghalien, Hokkaidô, Japan Proper, North America, Chili, New Caledonia, Australia, Auckland, New Zealand, Tasmania, Kerguelen, Antarctic Region, South Africa.

The species is new to the flora of Yakushima.

10) **Bryum capillare** LINNÉ Sp. pl. (1753) p. 1586.

Nom. Jap. Hariganegoke.

Hab. On loamy soil

Liukius : Between Yuwan and Shinmura, ins. Amamiôshima (Y. HORIKAWA, March 25, 1934).

Distr. Europe, Azores, Canary, Algeria, Tunis, Morocco, Caucasus, Himalaya, Siberia, Japan Proper, North America.

The species is new to the flora of Liukius.

11) **Mnium Thomsoni** SCHIMPER Syn. ed. 2. (1876) p. 485.

Syn. *Mnium lycopodioides* non HOOKER) MITTEN in Journ. Proc. Linn. Soc. Bot. III. Suppl. (1859) p. 142.

Nom. Jap. Hime-chôchingoke.

Hab. On the wetty rocks.

Liukius : Mt. Tedôsan, ins. Iriomotejima (Y. HORIKAWA, Apr. 3, 1934).

Distr. Nepal, Sikkim, Tibet, Yunnan, Japan Proper, Hokkaidô.

The species is a new addition to the flora of Liukius.

12) **Rhizogonium badakense** FLEISCHER Musc. Fl. Buitenzorg, II. (1902-04) p. 595.

Nom. Jap. Hiroba-hinokigoke.

Hab. On the decayed woods and humus.

Yakushima : Anbô (Y. HORIKAWA, July 8, 1933) ; Between Daidôsugi and Kurio (Y. HORIKAWA, July 13, 1933 ; Hirauchi (Y. HORIKAWA, July 13, 1933).

Distr. Java, Formosa, Liukius, Japan Proper.

This species is new to the flora of Yakushima.

13) **Rhizogonium spiniforme** (LINNÉ) BRUCH in Flora (1846) p. 134.

Syn. *Hypnum spiniforme* LINNÉ Sp. pl. (1753) p. 1587.

*Hypnum Stereodon spiniformis* BRIDEL Bryol. univ. II. (1827) p. 557.

*Mnium spiniforme* C. MÜLLER Syn. I. (1849) p. 175.

*Pyrrhobryum spiniforme* MITTEN in Journ. Linn. Soc. Bot. X. (1869) p. 174.

Nom. Jap. Hari-hinokigoke.

Hab. On the decayed logs and soil.

Yakushima : Anbô (Y. HORIKAWA, July 8, 1933) ; Tashirobashi (HORIKAWA,

July 9, 1933); Between Hananoego and Daidôsugi (Y. HORIKAWA, July 12, 1933).

Distr. Nepal, Sikkim, Assam, pen. Malay, Philippines, Celebes, Borneo, Sumbawa, Java, Sumatra, Ceylon, Japan Proper, Formosa, Africa, Madagascar, Trop. & subtrop. America, Hawaii, Taiti, New Guinea, New Caledonia, New Zealand, Tasmania, Australia. ins. Kermadec.

This is a new addition to the flora of Yakushima.

14) **Bartramia crispata** SCHIMPER in Ann. Sci. Nat. XVII. (1893) p. 348.

Nom. Jap. Tamagoke.

Hab. On the shady soil.

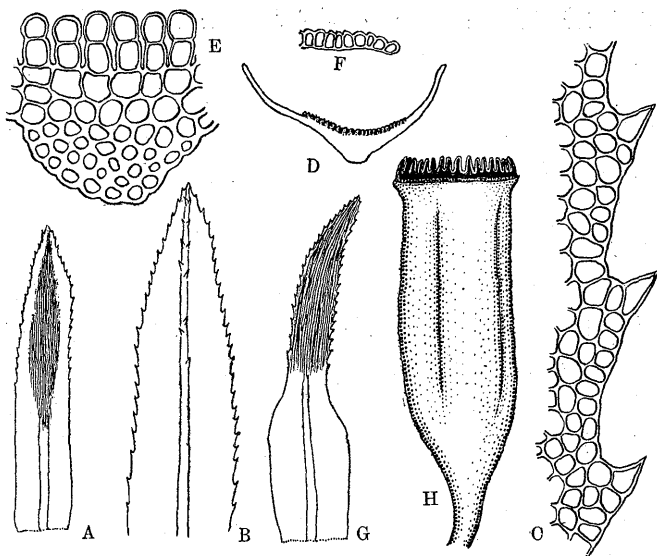
Formosa; Mt. Morrison (Tâtaka-Mayeyama), prov. Tainan (Y. HORIKAWA, Aug. 19, 1932).

Distr. Japan Proper, Hokkaidô.

The species is a new addition to the flora of Formosa.

15) **Pogonatum oligotrichoides** HORIKAWA, sp. nov.

Dioicum; sat gracile, caespitosum, caespitibus laxis, fusciscenti-viridibus, haud nitidiuseulis. Caulis usque ad 12 mm altus, cum foliis 4 mm latus, erectus, infima basi fusco-radiculosus, laxiuscule foliosus, plerumque simplex. Folia infima minuta, squamæformia, dein sensim multo majora, sicca laxè circinato-incurva, marginibus involutis humida oblique patentia, in plano ligulata, ad 4 mm longa, medio 0.65 mm, basi 0.75 mm lata, late obtuseque acuta, margine a medio ad apicem aculeato-serratis, dentibus late acutis crassis, usque unicellularibus; lamellis numerosis, latitudinem folii 1/2 occupantis, 19-22 seriatis, in sectione transversali breviora, usque 2-cellulas alta, cellulis fere subæqualibus, cellulæ apicali rotundæ; nervo crasso et brevo, postice valde convexo, antice leviter concavo, infra acumen evanido, dorso superne remote 1-2 seriate spinoso-serrato; cellulis laminaribus unistratis, quadratis, ca. 15  $\mu$ , incrassatis, cellulis vaginalibus inferioribus elongate rectangularis ca. 15  $\times$  34  $\mu$ , parietibus validus. Folia perichætalia intima parum angustiora, e basi longè semivaginantè ovato-elliptica abruptè lineari-subulata, ca. 4 mm longa, basi 0.9 mm, medio 0.44 mm lata, lamellis latitudinè



Text-fig. 2. *Pogonatum oligotrichoides* HORIKAWA. A. Leaf,  $\times 12$ . B. Upper part of ditto, dorsal view,  $\times 24$ . C. Marginal part of ditto,  $\times 330$ . D. Cross-section of leaf,  $\times 78$ . E. Middle part of ditto,  $\times 330$ . F. Marginal portion of ditto,  $\times 130$ . G. Innermost perichaetial leaf,  $\times 12$ . H. Capsule,  $\times 20$ .

A. 莖葉  $\times 12$ 。B. 同上ノ先端部、背面觀  $\times 24$ 。C. 葉ノ縁邊部  $\times 330$ 。D. 葉ノ横斷面  $\times 78$ 。E. 同上ノ中央部  $\times 330$ 。F. 同上ノ縁邊部  $\times 130$ 。G. 最内部ノ雌花葉  $\times 12$ 。H. 蒴胞  $\times 20$ 。

folii totam occupantis, cætera foliis similia. Seta caulis terminalis, ad 3.5 cm alta, fusco-rubra, valida, nitidiuscula; theca erecta vel suberecta, oblonga, ca. 2.5 mm longa, 1 mm lata, glauco-viridis, sicca macrostoma et infra orificium valde constricta, haud plicata; exostomii dentes sicci incurvi, ca. 0.25 mm alti, hyalini, medio rufescentes. Calyptra dense pilosa, ca. 5 mm longa, thecam totam obtogens. Planta mascula ad 8 mm alta.

Hab. On the soil.

Formosa: Mt. Morrison (Kodamayama-Tâtaka), prov. Tainan (Y. HORIKAWA, Aug. 18, 1932 -typus); Mt. Taiheizan (Kianrawazawa), prov. Taihoku (Y. HORIKAWA, Aug. 24, 1932).

1) えぞみづげにごけ *Pellia Neesiana* (GOTT.) LIMPR. ヲ筆者ハ先年樺太へ



旅行ヲシタ時數香近郊ノ幌内川畔デみづざぜんノ繁茂スル水溝ニ得タ。コレガ本種ノ樺太ニデノ最初ノ記録デアル。

2) 葉ガ極端ニ不相稱ニシテ極北地方ト北半球ノ高山(歐洲アルプスデハ2740米ノ高サ迄生育スル)トニ見ラレル *Lophozia quinquedentata* (Huds.) Cogn. ヲ筆者ハ同ジク樺太ノ突阻山ノ中腹ニテ採集シタ。東亞フロラニトツテ全ク初メテノモノデアル。

3) はねごけ屬(*Plagiochila*)ハ苔類中デ最モ多數ノ種ヲ含ムモノデアルガ、ソノ腹面葉(Amphigastrium)ハ全ク缺如スルカ又ハ極ク微小デ茶褐色ヲ呈シ顯微鏡下デモ往々見逃サレテキル位デアテルガ今回茲ニ發表セル上村登氏採集ノ土佐朴ノ川山産ノモノハ莖ヤ枝ノ腹面葉ハ一般ニハ矢張り小形デアルガ枝ニヨツテハ挿圖1ノE圖ニ示シタ様ニ實ニ偉大ナ形ヲナシ互ニ重ナリ合ツテキテ本屬ノ系統ヲ案ズル際ニ大イニ役立ツベク、詳細ハ他日ニ讓ルガ筆者ハコノ形質ヲ本屬ノ最モ原始的ナ型ト見做シタイ。トマレ今日迄知ラレテキル種ニハ全ク見ラレナイ特徴ヲ具ヘテキルノデ學名ハ *Plagiochila curiosissima* HORIKAWA トシテ置イタ。

4) やばねごけ *Nowellia curvifolia* (Dicks.) Mitt. ハ常ニ朽木上ニ匍匐シ葉ハ囊狀ノ下片ヲ具ヘテキルノデ他種カラハ極ク容易ニ區別ガ出來ルガソノ分布ガ今度初メテ北ハ樺太マデ伸ビタノデアル。

5) *Calypogeia Neesiana* (Mass. et Carest.) K. Müll. var. *hygrophila* K. Müll. ハ現今マデ獨乙及ビ瑞西兩國ノ山岳地方ノMoorニノミ知ラレテ來タモノデアルガ筆者ハ樺太ノ數香近郊ノ幌内川畔デみづごけト混生スル本變種ヲ採ツタカラ、之レガアジアニ産スルコトノ最初ノレコードナル。

6) *Frullania dilatata* (L.) Dum. ハ歐洲ニテハ最モ普通ナやすでごけノ1種デ筆者ハ先頃本種ヲ東亞ニハ初メテ北海道ニ産スルト東亞苔蘚植物誌IV(植物學雜誌 Vol. 49, p. 52)ニ報告シテオイトガ今度樺太ノ各地ニモ亦極メテ一般ニ見ラレルモノデアルコトヲ記シテ置ク。

7) *Physocolea denticulata* Horikawa ハ屋久島産ノ材料ニヨツテ記載シタ生葉上苔類ノ1種デアツテ葉脚ハ極メテ狭ク橢圓狀匏形ヲナシ葉縁ノ細胞ガ鋸齒狀ニ突出肥厚スル極メテ特徴ノアルモノデアルガ今回日本本部ニモ分布スルコトガ初メテ確實トナツタ。即チ土佐朴ノ川山デ生葉上ノモノヲ上村登氏が採集シタ。

8) 路傍ヤ崖崩レ跡等ノ陽地ニヨク生ズルきんしごけ *Ditrichum pallidum* (Schreb.) Hamp. ノ造胞體ヲツケタ見事ナモノヲ筆者ハ臺灣ニテハ初メテ太平

山及び新高山ニテ採集シタ。

9) 地球上ニ廣ク分布スルへちまごけ *Webera nutans* (SCHREB.) HEDW. ガ屋久島デハ初メテノ報告デアル。即チ筆者ガ學生ヲツレテノ修學旅行ノ際同島ノ安房ト田代橋トノ間デ採ルトコロ。

10) 同屬中デモ薺柄ガ著ルシク長クテ 剛強ナノデはりがねごけ *Bryum capillare* L. ノ名ガアル本種モ琉球デハ最初ノレコードデアル。即チ筆者自ラ奄美大島ノ湯灣ト新村トノ間ノ炭焼小屋附近デ初メテ採集シタ。

11) こちやうちんごけカラハ葉ノ 中肋ノ背ニ 棘ヲ具ヘ 且ツ薺蓋ニ 嘴ヲ有スルコトデ 區別出來ル 可憐ナ 薺デアル ひめちやうちんごけ *Mnium Thomsoni* SCHIMP. ガ琉球ニモ分布スルコトガ今回初メテ解ツタ。即チ先島列島中ノ西表島テドウ山ノ溪谷ニテ夥シイ山蛭ニ惱サレ乍ラ筆者自ラ採集シタモノデアル。

12) 次ノはりひのきごけカラハ葉ガ廣ク雌花葉ガ鞘膜ヨリ遙カニ長クテ廣イ基脚カラ急ニ長ク錐形ニ尖リ、ソノ尖端部ニ鋸齒ヲ具ヘルコトデ區別ノ出來ルひろばひのきごけ *Rhizogonium badakense* FL. ガ屋久島ニモ可ナリ多量ニ生育スルコトガ今度筆者ノ採集品ニヨツテ初メテ解ツタ。

13) 熱帯並ニ亞熱帯普遍種トモ呼ブベキはりひのきごけ *Rhizogonium spiniforme* (L.) BRUCH モ當然デハアルガ屋久島ニ産スルコトハ今度ガ初メテノ報知デアル。

14) 今日マデ日本本部並ニ北海道ノミニ知ラレテ來タたまごけ *Bartramia crispata* SCHIMP. フ筆者ハ先年臺灣新高山デ立派ニ造胞體ヲツケタモノヲ採集シタ。

15) 先年ノ夏筆者ガ臺灣ヘ旅行ヲシタ時新高山ト太平山トニテ採集シテ持チ歸ツタ植物ノ中ニたちごけもどき (*Oligotrichum*) 屬ノモノニ酷似シテ非ナル頗ル纖細ザにはすぎごけ屬ノ1種ガアリ、造胞體モツケ又雄株モ揃ツタ完全ナ標本デアルノデ今度詳シク調べテ見ルト今日マデ記載サレタ同屬ノ凡テノ種カラハ確然ト區別ノ出來ルモノデアルコトガ解ツタノデ *Pogonatum oligotrichoides* HORIKAWA ト云フ學名デ發表スル。(續ク)(廣島文理科大學植物學教室)